

Appl. No. 09/527,924

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Reply to Office action of June 6, 2003

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 Claim 1 (currently amended): An automatic gain control circuit  
2 comprising:

3 a gain variable amplifier which controls an amplitude of a  
4 receiving signal based on a control signal;

5 control signal generating means for level-detecting the  
6 receiving signal, averaging the detected receiving signal level for  
7 a predetermined time, and then generating a feedback signal as the  
8 control signal for the gain variable amplifier; and

9 controlling means for deciding at least one of a generation  
10 timing of the control signal and a generation period of the control  
11 signal in response to a predetermined physical quantity, and  
12 controlling the control signal generating means.

1 Claim 2 (withdrawn): An automatic gain control circuit  
2 according to claim 1, wherein the controlling means includes a look-  
3 up table which uses address information as the predetermined physical  
4 quantity and holds information of the generation timing of the  
5 control signal or the generation period of the control signal in  
6 response to the address information.

1           Claim 3 (original): An automatic gain control circuit according  
2           to claim 1, wherein the controlling means decides the generation  
3           timing of the control signal or the generation period of the control  
4           signal using a lapsed time in operation of the automatic gain control  
5           circuit as the predetermined physical quantity.

1           Claim 4 (withdrawn): An automatic gain control circuit  
2           according to claim 1, wherein the controlling means sets the  
3           generation period of the control signal shorter than the generation  
a 1          period in a steady operation state, for a predetermined rise time  
2           from a non-operated state to the steady operation state when a power  
3           supply is turned on.

1           Claim 5 (withdrawn): An automatic gain control circuit  
2           according to claim 1, wherein the controlling means sets the  
3           generation period of the control signal shorter than the generation  
4           period in a steady operation state, for a predetermined rise time  
5           from a non-operated state to the steady operation state when an  
6           intermittent receiving operation is carried out.

1           Claim 6 (withdrawn): An automatic gain control circuit  
2           according to claim 1, further comprising:  
3           detected output change amount detecting means for detecting an  
4           amount of change in a detected output of the receiving signal;  
5           wherein the controlling means decides the generation timing of

6 the control signal or the generation period of the control signal  
7 using an amount of change in the detected output as the predetermined  
8 physical quantity.

1 Claim 7 (withdrawn): An automatic gain control circuit  
2 according to claim 1, further comprising:

3 fading pitch detecting means for detecting a fading pitch of  
4 the receiving signal;

5 wherein the controlling means decides the generation timing of  
6 the control signal or the generation period of the control signal  
7 using the fading pitch as the predetermined physical quantity.

1 Claim 8 (currently amended): A receiver device comprising:

2 an automatic gain control circuit including: a gain variable  
3 amplifier which controls an amplitude of a receiving signal based on  
4 a control signal; control signal generating means for level-detecting  
5 the receiving signal, averaging the detected receiving signal over  
6 a predetermined period of time, and then generating a feedback signal  
7 as the control signal for the gain variable amplifier; and  
8 controlling means for deciding at least one of a generation timing  
9 of the control signal and a generation period of the control signal  
10 in response to a predetermined physical quantity, and controlling the  
11 control signal generating means.

1        Claim 9 (currently amended): An automatic gain control method  
2        in a receiver device including a gain variable amplifier which  
3        controls an amplitude of a receiving signal based on a control  
4        signal, the method comprising:

5        a control signal generating step of level-detecting the  
6        receiving signal, averaging the detected receiving signal over a  
7        predetermined period of time, and then generating a feedback signal  
8        as the control signal for the gain variable amplifier; and

9        a controlling step of deciding a generation timing of the  
10       control signal or a generation period of the control signal in  
11       response to a predetermined physical quantity.

1        Claim 10 (original): An automatic gain control method in a  
2        receiver device according to claim 9, wherein the controlling step  
3        decides the generation timing of the control signal or the generation  
4        period of the control signal using a lapsed time in operation of the  
5        receiver device as the predetermined physical quantity.

1        Claim 11 (withdrawn): An automatic gain control method in a  
2        receiver device according to claim 9, wherein the controlling step  
3        sets the generation period of the control signal shorter than the  
4        generation period in a steady operation state, for a predetermined  
5        rise time from a non-operated state to the steady operation state  
6        when a power supply is turned on.

1        Claim 12 (withdrawn): An automatic gain control method in a  
2        receiver device according to claim 9, wherein the controlling step  
3        sets the generation period of the control signal shorter than the  
4        generation period in a steady operation state, for a predetermined  
5        rise time from a non-operated state to the steady operation state  
6        when an intermittent receiving operation is carried out.

1        Claim 13 (withdrawn): An automatic gain control method in a  
2        receiver device according to claim 9, further comprising:

ai 3        a detected output change amount detecting step of detecting an  
4        amount of change in a detected output of the receiving signal;

5        wherein the controlling step decides the generation timing of  
6        the control signal or the generation period of the control signal  
7        using an amount of change in the detected output as the predetermined  
8        physical quantity.

1        Claim 14 (withdrawn): An automatic gain control method in a  
2        receiver device according to claim 9, further comprising:

3        a fading pitch detecting step of detecting a fading pitch of  
4        the receiving signal;

5        wherein the controlling step decides the generation timing of  
6        the control signal or the generation period of the control signal  
7        using the fading pitch as the predetermined physical quantity.

1           Claim 15 (currently amended): A computer-readable recording  
2 medium for recording the automatic gain control method for the  
3 receiver device as a program to be executed by a computer, said  
4 method comprising:

5           a control signal generating step of level-detecting the  
6 receiving signal, averaging the detected receiving signal over a  
7 predetermined period of time, and then generating a feedback signal  
8 as the control signal for the gain variable amplifier; and

9           a controlling step of deciding a generation timing of the  
10 control signal or a generation period of the control signal in  
11 response to a predetermined physical quantity.

1           Claim 16 (new): An automatic gain control circuit comprising:

2           a gain variable amplifier which controls an amplitude of a  
3 receiving signal based on a control signal;

4           control signal generating means for level-detecting the  
5 receiving signal and then generating a feedback signal as the control  
6 signal for the gain variable amplifier; and

7           controlling means for deciding at least one of a generation  
8 timing of the control signal and a generation period of the control  
9 signal in response to a predetermined physical quantity, and  
10 controlling the control signal generating means,

11           wherein the controlling means decides the generation timing of  
12 the control signal or the generation period of the control signal  
13 using a lapsed time in operation of the automatic gain control

14 circuit as the predetermined physical quantity.

1 Claim 17 (new): An automatic gain control method in a receiver  
2 device including a gain variable amplifier which controls an  
3 amplitude of a receiving signal based on a control signal, the method  
4 comprising:

a 5 a control signal generating step of level-detecting the  
6 receiving signal and then generating a feedback signal as the control  
7 signal for the gain variable amplifier; and

8 a controlling step of deciding a generation timing of the  
9 control signal or a generation period of the control signal in  
10 response to a predetermined physical quantity, wherein

11 the controlling step decides the generation timing of the  
12 control signal or the generation period of the control signal using  
13 a lapsed time in operation of the receiver device as the  
14 predetermined physical quantity.

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